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ABSTRACT

Recruiting and training workers to meet the critical shortage of trained health manpower is the major goal of the U.C.L.A. Secondary School Allied Health Project. In order to illustrate how the program combines work experience and classroom activities so that students become aware of the possible careers in the health field, this publication follows a typical student through the first year of the project. During the initial stages of the project, the following activities occurred: (1) students from four high schools were recruited, interviewed, and selected for the program, (2) parents were oriented to the program, (3) class programs and educational requirements for each student were determined, (4) teachers were selected and trained, and (5) five hospitals agreed to cooperate as training stations. Following development of the curriculum during the summer, the training program began in the fall and consisted of classroom activities, clinical experience, and a month-long internship in a cooperating hospital. In evaluating the first year of the program, project staff felt that the program's success was due in large measure to the cooperation of the hospital personnel. This success was achieved by: (1) making sure the program was understood, (2) making the program fit smoothly into each department, (3) listening to department heads, and (4) presenting the program to workers at all levels. (SB)

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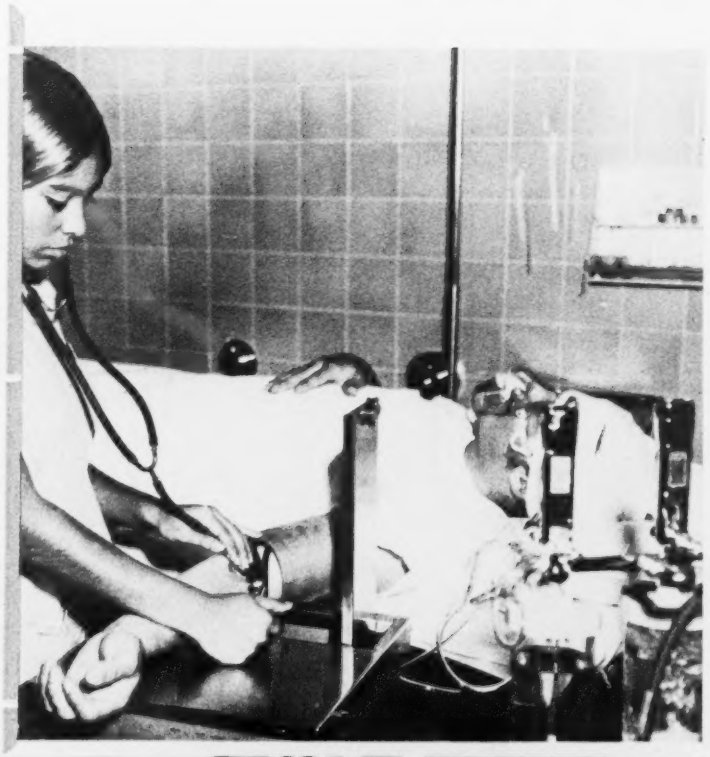

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A NEW SOURCE OF MANPOWER

UNIVERSITY OF CALIFORNIA, LOS ANGELES
Division of Vocational Education

SECONDARY SCHOOLS ALLIED HEALTH PILOT AND DEMONSTRATION PROJECT

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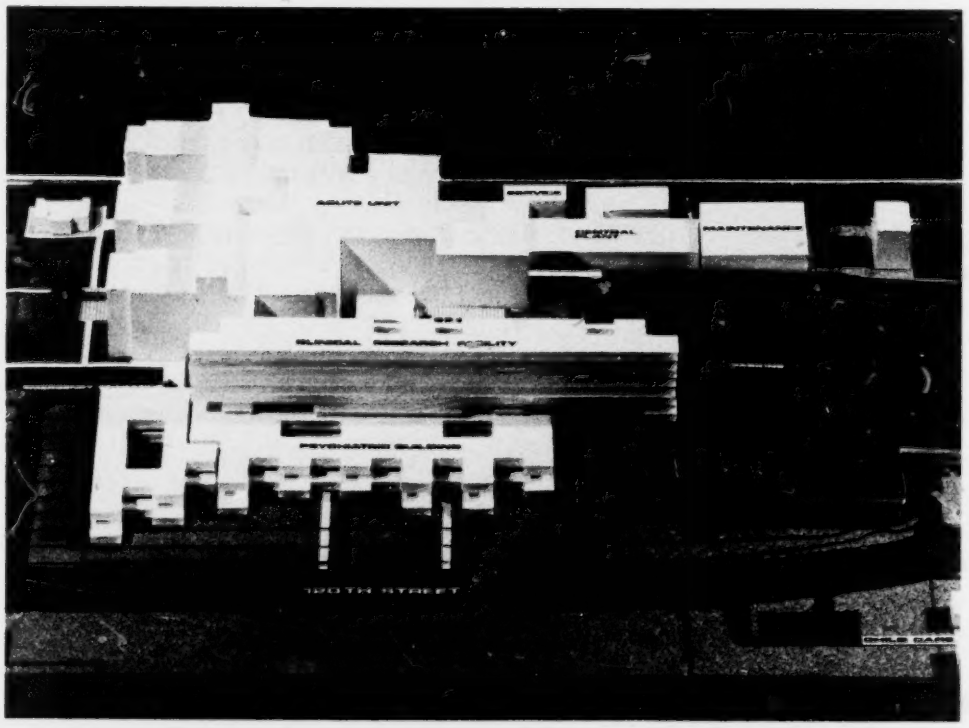
How The Allied Health Program Came About

Watts, California 1965--a black community in flames. Intensified by abnormal summer heat, frustration had reached critical mass and erupted in a chain reaction of violence.

The surrounding white community, frightened by the fury, and chastened by guilt born of the knowledge that behind the lawlessness lay legitimate grievances long neglected, vowed that such a riot would never be repeated. To that end many promises were made. Some were kept.

Among the promises--decent health care for the community. Among the promises--better job opportunities in the community. Fortunately, these two nicely complement each other. New health services mean new jobs. One facility alone, the Martin Luther King Hospital, now being built in the black community with Federal, State and local funds, besides offering much needed health care, will soon employ hundreds of neighborhood people--but they must be trained for hospital work.



Architect's model of Martin Luther King Jr. Hospital

Training, indeed, is the bottleneck which prevents the problems of expanding health services and of providing fresh employment opportunities from automatically solving each other. Though most acute in the ghetto, need for training extends far beyond. It is clearly a nationwide concern. The serious shortage of trained manpower has long disturbed those responsible for health care planning and policy. Official government projections indicate that 10,000 new workers will be needed each month for the next ten years.

Where are all the new workers to come from? How are they to be trained? It was to answer these questions that the Secondary School Allied Health Project was created.

The first question was easy to answer, because the answer is neither new nor obscure. The fact has long been recognized that students in the secondary school systems can provide an abundant source of previously untapped manpower for the allied health professions. Many sporadic and unsuccessful efforts have been made to develop high school health career programs and pertinent vocational education programs. The problem was not to develop yet another, but to develop one that would work.

The key lay in combining work experience with classroom education; the "real" work enables the student to experience the work-role and facilitates the learning of skills and tasks. At the same time, the educational components contribute to potential upward mobility. The student becomes aware of the many possible careers in the health care field and the ways in which these fields may open up to him.

How this worked out can best be seen by following a typical student through the first year of the project. We'll call him Carl Dickerson. The name is fictitious but the story is true.

The Story of Carl Dickerson

Carl Dickerson, a 15-year old black ninth grader at Drew Junior High School in Los Angeles, was invited to attend a school assembly where students were told about UCLA's Allied Health Project. Not much impressed, he sat only half-listening to the Field Coordinator until the talk turned to the subject of jobs. His interest flickered to life as the coordinator spoke of the Pharmacy Aide, the Business Office Aide, the Physical Therapy Aide, and many other health-related jobs. He had never heard of any of these. To him, working in the health field had meant being either a doctor or a nurse, and these were professions requiring years of school and college. This was not for him. Barely a C student, he had planned to drop out of school that summer. He had always found it a drag. Now, suddenly a whole new vista was opening--jobs requiring briefer training, and a project offering that training!

A leaflet was handed to Carl. As he read it, his attention was caught by a paragraph which reported the rapid growth of health service programs and the serious shortage of trained health manpower. He then learned that the school he would be attending in the Fall, Fremont High, was one of only four schools involved in the Allied Health Project. Eagerly he filled out an application.

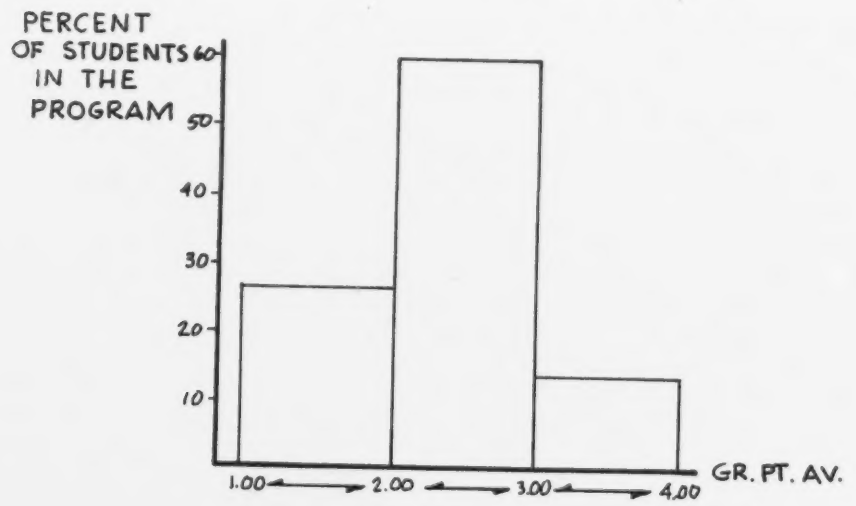
A short time later he was invited to a group session in which applying students were to discuss their reasons for wanting to be in the allied health class. But now he was having second thoughts. Not that he had changed his mind about the project. It still sounded good. Too good. Too good to be true--for him. Good things didn't happen for Carl Dickerson. He was a born loser. At least that's how he saw himself. And seeing the image, he lived it. Convinced that his application would eventually be turned down, especially because of his poor grades, he smothered each spark of enthusiasm in order to protect himself against disappointment.

A REWARDING CAREER CAN BE YOURS IN THE

ALLIED HEALTH OCCUPATIONS

ALLIED HEALTH PROFESSIONS PROJECTS
SECONDARY SCHOOLS DEMONSTRATION PROJECT
DIVISION OF VOCATIONAL EDUCATION
UNIVERSITY OF CALIFORNIA
LOS ANGELES

What Carl didn't know was that the project was designed to include people like him. It tried to be attractive and useful to a broad cross-section of students. 100 students would be selected from the 800 who had applied. This 100 would include three achievement levels:



Carl's grades, therefore, did not rule him out. The deciding factors would be whether he showed a genuine interest in the project, and whether he related well to a group. This would be determined by an interview in which a group of no more than six applicants would meet with one of the project's field staff. In this way students could be evaluated as individuals, and seen in relation to their peers.

The session began. Carl remained silent, listening as the other applicants spoke up forcefully, agressively. Unlike Carl, they were more typical of Fremont High School students.

Fremont, located in the center of urban Los Angeles, is a school in revolution. In 1968, it was the scene of many disturbances. Harsh demands were being made by the Black Student Union, the community was irate, and the student body was given to frequent absences. During one period, only 20 percent of the students were attending classes. At present, young black students, ardently seeking their own identity, are growing into an aware, vocal, and action-oriented student body.

In the group session Carl's fellow Fremonters-to-be were as suspicious as he. But they were ready to strike back. If the project was a fraud they would expose it. They fired probing, demanding questions at the coordinator: Why should they trust the figures quoted? Would the schools really follow through on the project? Who says the hospitals would cooperate?

The coordinator, black himself, and young, in his twenties, dodged none of the questions. He had many sources to substantiate the overwhelming demand for allied health workers. And he could assure the students that the schools and hospitals which had agreed to work with the project showed sincere interest. Three hospitals, in fact, had helped design the project. These were Cedars-Sinai, a hospital with more than 500 beds, Harbor General, and the staff of the soon to be completed Martin Luther King Hospital. As the session continued the students began to realize that this was not a charity scheme, a favor to placate the students which could be lightly withdrawn. An exciting fact emerged: Not only would the program help the students--but they could help the hospitals while they learned. They were needed!

In spite of himself, Carl's hopes began to rise again. Still, he said nothing.

If the project had not been carefully planned, Carl's silence could have been fatal to his chances. These students were being evaluated. Selections were being made. Fortunately, the coordinator knew the background of each of the students. He realized that Carl was not unique. Though he was an exception among students bound for Fremont, he was quite like many of the students at Jordan, another project High School.

Jordan High School, situated in the center of Watts, draws most of its students from families receiving welfare. A recent list of students eligible for funds from the Neighborhood Youth Association programs for disadvantaged youth included the entire Allied Health Class of Jordan High School. This high population of the disadvantaged might account for the fact that these students, like Carl, are quite compliant and passive. They are uninvolved even in the Civil Rights movement. Because of this, the introductory process had to be made attractive to stimulate these students, and special effort had to be made to break through their shell of indifference.

Steps to Program:

1. Students are told about the program and given leaflet.
2. Those interested apply.
3. Applicants are interviewed.
4. Applicants are screened on basis of interest shown, ability to relate to peers, and fitting the achievement level pattern.
5. Those selected are interviewed with their parents.
6. Conferences with counselors and teachers and a check of the students' cummulative records results in the selection of the final one hundred project students.
7. Letters are sent to those accepted.

The coordinator, prepared for students like Carl, carefully led the boy into the conversation. He began by asking Carl's opinion about something one of the other students had said. Thus Carl found himself in the discussion not on the basis of his own hopes and plans about which he might be reticent, but as a judge of another's ideas. A second comment from the Coordinator a little later led to an exchange between Carl and another boy. Soon Carl was volunteering, though still tentatively. The ice was broken, but it was not until the session was nearly over that the Coordinator asked, casually, what Carl's interest in the project was. Carl swallowed. Then he muttered, "Well--uh--I'd like to make money, and a-uh--well, like--maybe help people." The tone was tentative, but the Coordinator sensed conviction. He made a note of it.

The group session was followed by an individual conference. By now Carl felt he knew the Coordinator. He liked him and could put trust in him. In private he

was more willing to open up about his own feelings, ideas and plans. He now remembers this meeting as being the first time anyone at school had taken time to sit down with him and ask what he wanted.

Now Carl waited. During this time the project staff reviewed the past school records of all students interviewed, and weighed comments and recommendations by teachers, counselors, parents and Coordinators. Finally, a letter came saying Carl would be part of the Allied Health Demonstration Project in the Fall. He had been accepted!

Parent Orientation

After all the students had been interviewed and selections made, Project Field Coordinators talked to the parents of selected students. This was done for several reasons: first, it was important that parents understood the program and that it would satisfy the needs of their child. Secondly, it was hoped to enlist the aid of the parents in interpreting the program to the students. Misunderstanding and misinterpretation, although anticipated, needed to be avoided. It would be helpful to have the parents ready to reinforce project staff in their work with the students.

Academic Credit

While members of the project staff were recruiting students, they also worked out class programs and educational requirements with school counselors for each student. The school administrators agreed that the students would receive 10 units of transferable Health credit each semester for the Allied Health Professions class.

The Teachers

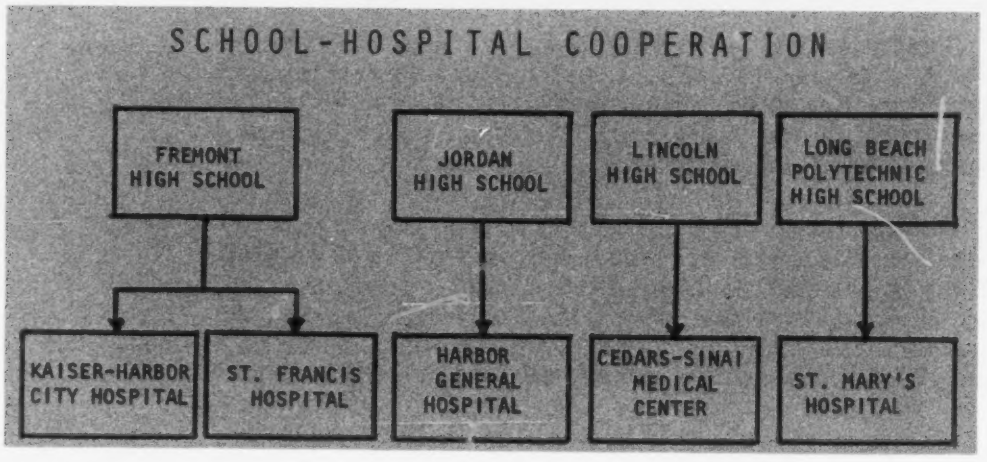
Teachers had to be selected and trained within the project framework. School principals were asked to select, on the basis of interest, the ability to relate to students, some knowledge of health education academics, and creative ability.

During the summer, while Carl and the other students who had been accepted waited for the beginning of the project that could mean so much to them, a nine-week Hospital Internship was set up for the teachers. They were to study and work in the hospital environment. This exposure was expected to make the curriculum, which they were to help develop during this period, more meaningful. In order to include students' contributions, a 12th grader from each school was selected to join the Summer Internship and to share the teachers' experiences.

Crisis

Up to now everything had gone quite well. Problems that came up had been taken in stride. From the start, some schools had balked at the project. A few, stressing academic training and college preparation, bristled at the mention of "vocational" training; others feared that a government project might lose its funding in mid-program, leaving the schools with a half completed activity. But four schools were enthusiastically ready to participate. Besides the two, predominantly black schools, Jordan and Fremont, Lincoln and Long Beach Polytechnic High Schools also joined the project. In contrast to the two inner-city schools, Lincoln's student population is 98 percent Mexican-American. Many of its students come from homes where parents speak only Spanish. At Long Beach Polytechnic the cosmopolitan student body is composed of Caucasians, Blacks, Chicanos, Orientals, and Indians. These four schools had agreed that the potential of the project far out-weighed any hazards, and the planned curriculum, far from conflicting with the plans of college-bound students, could be used to advance them.

The problem of gaining hospital cooperation also had been met. Though some institutions insisted they were not training hospitals, and others were dismayed at the thought of having groups of teenagers descending on them, Cedars-Sinai, Harbor General, and Martin Luther King hospitals, as we have noted, had helped plan the project. Since Martin Luther King Hospital would not be completed during the first year of the project, St. Francis Hospital in Lynwood and Kaiser-Harbor City Hospital agreed to take its place, St. Mary's Hospital in Long Beach also agreed to provide training in a program which would eventually benefit it as a source of skilled personnel.



With necessary school and hospital cooperation obtained, students had been selected and teachers enlisted. Now the Summer Internship and curriculum development were under way. Then, in the middle of the internship, three of the four teachers resigned!

In a few weeks school would open, and the project was foundering. It must not be allowed to sink. If it failed to meet its commitment to the students, militants would be justifiably enraged, and worse, the apathetic, like Carl, would be further, perhaps irreparably, demoralized.

There wasn't much sleep for project workers during the next weeks. While the curriculum was frantically pounded into shape, new teachers had to be recruited and rushed through an accelerated orientation. A highly qualified woman with strong health education training was found--but she had not yet obtained a teaching credential. She put in an application, and project workers hounded the credentials office to get the necessary papers processed in time. Another woman who had been a teacher now held an entirely satisfying position in the health field. Pleading, cajoling, and begging finally persuaded her to give up her job and return to teaching and to the challenge and promise offered by the project. Telephone lines hummed, pages dropped from the calendar, lights burned far into the night. Coffee, tranquilizers, tranquilizers, coffee, blood, sweat, and tears.

The first day of school. Somehow, the project was ready to go.

Starting The Program

Carl reported promptly to the allied health class which was to meet every afternoon for two hours. He listened attentively while the project teacher told the class that the coming school year represented the first phase of a three-phase program. It would serve as an introduction to the field of Allied Health. The second phase would be Work Study, and the third a Cooperative Education Plan. Field trips to hospital and clinical facilities would be an integral part of course content, with a four-week period of hospital exploratory experience at the end of this first school year.

In the first week of class the students had many of their questions answered about the project, and were oriented to hospital ethics and behavior. With his classmates, Carl spent the next two weeks alternating between classroom and hospital. Each student was assigned to a supervisor in one of the six departments that interested him. Carl spent a day in each area--Medical Lab, Physical Therapy, Inhalation Therapy, Nursing, Central Supply, and Engineering. After each hospital experience, Carl returned to the classroom to join the other students in sharing what they had learned about hospital functions and allied health occupations.

In the classroom the teacher guided the students through the first module of the curriculum, The Health Care System, covering such topics as:

Components of the Health Care System

Utilization, Non-utilization, Mis-utilization of the Health Care System: quackery and folk medicine, how to evaluate health information and medical care, and how to utilize the health care system.

Problems of the Health Care System

Manpower Projections

Carl had enjoyed the hospital experience, but now his old resistance to classroom activity dampened his pleasure. Always a problem reader, he had been delighted and surprised when he was told the program would require no textbook or in-class note taking. But now he was being asked to read health-related articles in newspapers, magazines, pamphlets, and journals. Although the articles were short, they took a good deal of his time.

While Carl and other slow readers struggled to keep up, more advanced students became impatient. Basic skills varied widely, and as teachers struggled to bridge the gap, student frustration mounted. Some students disrupted the class with clowning, others through open hostility toward the teacher. Absenteeism rose, and some students dropped the course. As classes became increasingly disorganized, Carl began to renew his thoughts of quitting school.

The resiliency of the program was now really being tested. Fortunately, it had certain built-in attractions. The week in the hospital had been one. Films were another. Carl particularly enjoyed one on medical quackery from the television program, "Hawaii 5-0." And field trips to various community health facilities broke the drudgery of class work. Finally, the week in the hospital and additional hospital visits had whetted his appetite. Promise of a full month at the hospital at the conclusion of the school year tipped the scales in favor of his sticking with the project.

In the meantime, field coordinators continued working with parents and students to gain support for the class, and to solve individual students' problems. And a group of undergraduate tutors were brought in from UCLA to work with the class. They worked on the "buddy system," visited students at home, took them on picnics and on a tour of the UCLA campus, and generally helped them gain confidence and poise in the non-ghetto community. With the help of his tutor Carl was able to overcome some of his reading difficulties.

By the middle of November students and teachers began to adjust to the innovational methods of this new experimental approach to teaching and learning. The dropout rate declined, and the remaining students took a greater interest in classwork as they saw how the skills gained there were useful and necessary to the hospital occupations toward which they were working. All was still not smooth, but another crisis had passed.

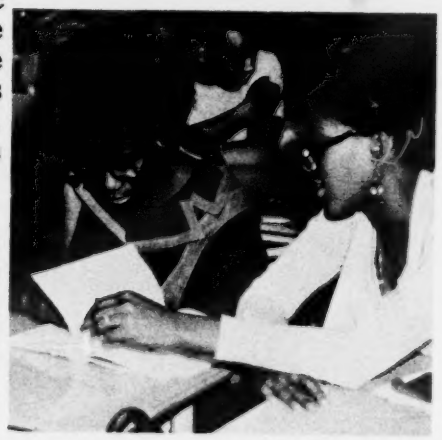
The Case Study Approach

To make the academic instruction truly relevant, a typical case was presented to the class, that of a fellow-student who needed a physical examination in order to play on the school football team. With the help of the school nurse, each allied health student learned how to use a weighing scale and the Snellen Eye Chart.

The second case was that of a student with a broken leg. Besides learning about the jobs of all the people who helped the injured youngster, Carl had a chance to learn the technique of making a plaster cast, testing blood, taking temperatures, making a hospital bed, carrying out a stretcher, and assisting with physical therapy. The technicians in the hospital were very kind and answered all his questions. He felt accepted.

Just before Christmas, when the hospital was being decorated for the holidays, Carl and his classmates found many ways to be of service to patients and the hospital staff. They wrapped packages, decorated trees, and hung ornaments. This was fun for Carl because he liked the holidays, especially if he didn't have to worry about money.

The next case dealt with food poisoning caused by improper storage of food, and included a discussion of environmental sanitation as a community concern. Elementary principles relating to epidemiology, microbiology, and asepsis were introduced. Carl learned what the words meant and how to spell them. Learning was aided by the public health sanitarian who came into the classroom to discuss some of the aspects of his job. Class work was becoming more interesting for Carl. He began to volunteer his opinions more often in class.



The Maternal and Child Care Case encompassed the verification of pregnancy, prenatal care, hospital delivery, and postnatal care. Carl learned some procedures of urinalysis and visited a County Health Department Well Baby Clinic.

As part of the study of pollution, each student prepared a project which was put on exhibit along with those from the project's other schools. The problem of air pollution was used as a model for discussing all pollutants. Community resources, controls, new occupations, and diseases of the respiratory system were considered. Carl made a model showing Air Pollution Inversion. Proudly, he carried it into the exhibit room and placed it

on the table where it would be displayed. But as the room began to fill with other exhibits his self-satisfaction crumbled. Some of the exhibits offered elaborate art work with which he couldn't hope to compete. Others contained beautifully printed captions with vocabulary which impressed him though he couldn't understand, or even pronounce, many of the words. He looked again at his own model, and now it appeared to him as a childish patchwork of smeared cardboard. He wished he could smuggle it out of the room.

Visitors, teachers, other students arrived. When the room was filled, everyone was asked to be seated. Lights were put out and a motion picture was shown. This was a film made by two oriental boys from Long Beach Polytechnic. It opened with the sun rising over Los Angeles. That first shot, revealing the glory of sunrise dimmed and blurred by muddy smog, immediately dramatized the theme of pollution. The film went on to show littered streets and freeways, crowds, the muck and filth of the city. It closed with a smog shrouded sunset. Carl had to respect this expert craftsmanship, but he couldn't enjoy it. As he compared it in his mind to his own humble display, he cringed.

Lights were up again, and prizes were being given. Naturally, the film received honors. The judges moved through the exhibition awarding further prizes. They stopped in front of Carl's model. In confusion he heard one of them speaking. What was he saying? Something about, "straight-forward--clear--factual." Startled, amazed, Carl nodded in response to applause. The film had received the award for creativity. Carl received first prize for factual presentation.

Parent Evaluation

One evening in April Carl's mother attended an evaluation meeting with other parents and with some of the project staff. She had an opportunity to voice her opinion on how the allied health class was helping her son. Mrs. Dickerson was quite well informed about the class. "Carl tells me what he does in this class every day. I've never seen him so happy about school before--this is his favorite class." She said that Carl was improving in all his grades. He was neater about himself and more involved in church affairs than ever before. The other parents in the group made similar comments, and were especially excited about the hospital career aspects of the project.

Clinical Experience

Carl had been in the hospital ten times since his introductory experience. He knew a lot of people, but better still, a lot of people knew him. Now he was being prepared for his month of internship. Two weeks of preparation helped him choose four departments in which to train. He would be paid a minimum wage for working two hours each day. A uniform would be furnished by the hospital. He already had his identification nameplate which he wore with pride. But he was worried about getting along with him supervisor. What if he had problems? The teacher and Field Coordinator noted the students' worries and helped them role-play the problems they anticipated. Carl made his decision--he wanted to have a week of work-experience in Engineering, X-ray, Admitting Office, and Emergency. He thought he might eventually go into engineering, but he was interested in all of these areas and wanted to find out what he liked best.

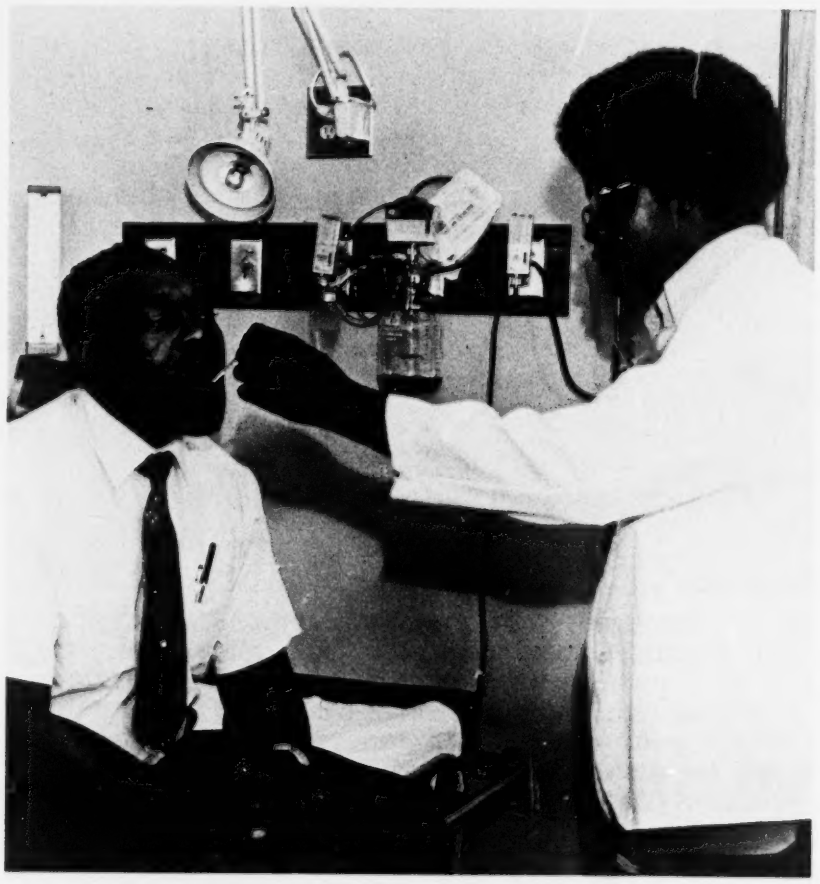
Every day after the regular school session, transportation to the hospitals was provided for the students.

Carl had to pick up his uniform, a white jacket, for work in the X-ray Department. He thought he looked a lot older and "very cool" in this outfit. His supervisor explained the function of the department and assigned a technician to show Carl how he could help. He found the work enjoyable, especially because his supervisor kept him busy. He hated to leave X-ray at the end of the week. His evaluation rating was very good and he felt adult. Here he was punching a time clock, receiving a pay check, and being told he was doing well. He was pleased with himself.

For the second week, Carl was assigned to the Admitting Office. After a brief orientation to the department, the only task his supervisor gave him was to accompany new patients to their rooms. This was fun, but there weren't many new patients coming in, especially during the hours Carl was on the job. He became bored, the supervisor ignored him, and he was glad when the week was over.

For the third week, he was assigned to Emergency. The doctor let him actually work with patients, and Carl was delighted to be useful. In the fourth week he was finally assigned to Engineering. This was really exciting, especially when he went crawling through the air-conditioning vents behind the Chief Engineer. Now he was sure that this is where he would finish his training.

Saying goodbye to everyone in the hospital was upsetting. Carl hoped to be able to come back next year for a four-hour-a-day work experience in Engineering.



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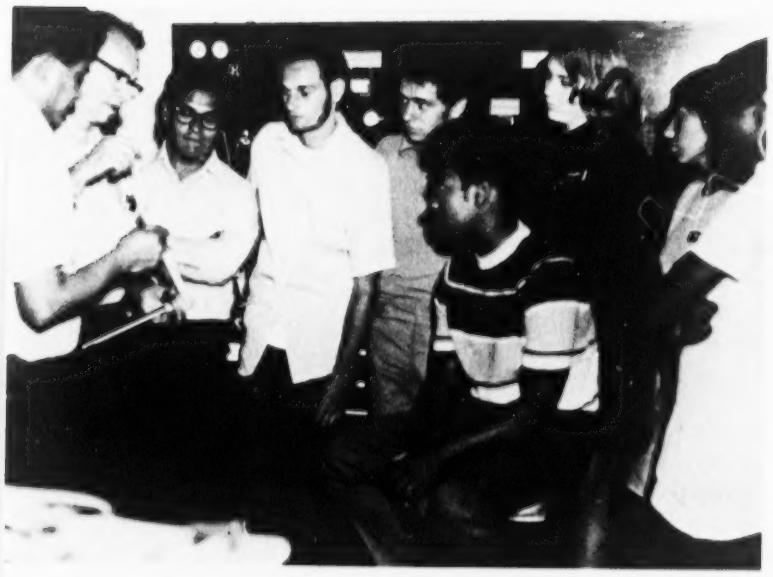

Looking Back

The final success of the program was due in large measure to the cooperation of the personnel at the hospitals. When the program was first presented to the department heads, they were happy to accept it and promised whatever assistance was needed. As the program was explained in more depth, some of the department heads lost their zeal and became extremely doubtful as to its possible success. With gentle persuasion and repeated explanation, it was possible to change their attitudes.

The most important points in dealing with the hospitals proved to be:

1. Making sure that the program was understood thoroughly by all the department heads. This meant explaining the program in their language as many times as necessary.

2. Making the program fit smoothly into each department. Since each area functioned differently, the program had to be flexible enough to avoid upsetting the work routine.

3. Listening to the advice and suggestions of the department heads. This was very important. Often what was preferable for the project was not feasible for the hospital.

4. Presenting the program to the workers at all levels. Frequently the department workers dealt directly with the students. They had to understand enough of the program to help them present what was wanted.

The month of internship was the highlight of the project. One of the most exciting experiences occurred when a project student assigned to Inhalation Therapy was pressed into service with a patient suffering from cardiac arrest who could speak only Spanish. This fifteen-year old Mexican-American student translated so efficiently for the medical staff that he was instrumental in saving the patient's life. The medical staff at this hospital has been praising the student and the program every since.

Back in the classroom, Carl shared his experiences and helped to plan a culmination program for project friends in the hospital, at home, and in school. His class chose him to be chairman of the program. As he planned and gave out assignments, he realized how much he had grown and learned in the Allied Health Professions class.

Toward the end of the semester students had been told that hospital jobs might be available to those students who wished to work during the summer. Almost half the students in the project applied, and Carl was among them. True proof of the project's acceptance by, and value to, the hospitals is the fact that every student who applied for a hospital job was hired!

And Looking Forward

The story of the project and of Carl Dickerson is far from over. The first year had been stormy, but the storms had been weathered. There will be more troubles ahead, but these too will be overcome.

The project staff, the teachers, the students--all have a year's experience behind them. The story closes not with a conventional happy ending but with a productive beginning. We don't show Carl on the road to medical school nor on his way to becoming a chief engineer--although neither is impossible. What he becomes and how far he goes is up to him. The choice is his. He has been shown a range of goals and the means necessary for reaching them. What more can anyone ask than that his future be in his own hands, and that he have the information and tools for shaping it?

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